

MARISSEN
Serial No. 10/584,860
February 16, 2011

REMARKS

Favorable reconsideration and allowance of this application are requested.

1. Interview Summary

Applicants' undersigned representative wishes to express his gratitude to Examiners Wood and Dye for the time and courtesies during the personal interview of February 9, 2011. It is believed that the discussions during the interview materially advanced prosecution of this application.

In this regard, the Examiners' Interview Summary Record of that date was not provided to the undersigned at the conclusion of the interview and a copy has not yet been posted on the USPTO's PAIR site as of this date. Thus, applicants' undersigned attorney will present any comments that may be deemed necessary promptly on receipt of the Examiners' Interview Summary Record. However, it is to be noted that the claims presented above are substantively identical to those that were discussed with the Examiners during the February 9th interview along with the reasons memorialized below as to the manner in which such claims are patentably distinguished over the applied references of record, particularly Bhatnagar et al (USP 6,846,758) and Benjamin et al (GB 1386953).

2. Request for Continued Examination

As a procedural note, the present amendment is being filed concurrently with a formal Request for Continued Examination (RCE) under 37 CFR §1.114. Accordingly withdrawal of the "finality" of the August 31, 2010 Official Action is in order so as to allow entry and consideration of the amendments and remarks presented herewith.

3. Discussion of Amendments

By way of the amendment instructions above, pending independent claim 13 has been revised so as to emphasize that the polymeric fibers are “drawn” as a result of the deformation process so as to achieve the difference between the greatest and smallest mean values of the different mean fibre diameters of at least 7%. Thus, the amended claim 13 makes it clear that the difference in the mean fibre diameters is due to the fibres being *drawn* in response to the deformation process to form the curved object.

Claims 25-34 are new. In this regard, independent claim 25 is closely based on pending claim 13 but has been drafted so as to avoid product-by-process terminology. Like claim 13, however, new claim 25 emphasizes that polymeric fibres are drawn in response to deformation of the at least one ply so that the object exhibits in different locations a different mean fibre diameter which is a diameter common to a majority of fibres, with a difference between greatest and smallest mean values of the different mean fibre diameters being at least 7%. Claims 26-34 are based on existing dependent claims.

Therefore, following entry of this amendment, claims 13 and 16-34 will remain pending herein for consideration. Favorable action on the merits of such pending claims is therefore solicited.

4. Response to 35 USC §103(a) Rejection

The Examiner has persisted in her rejection of prior claims 13 and 16-24 under 35 USC §103(a) as allegedly being unpatentably “obvious” over Bhatnagar et al (USP 6,846,758) in view of Benjamin (GB 1386953). Applicants suggest that neither Bhatnagar et al nor Benjamin render obvious the claims as now pending herein.

As was discussed during the interview, the applied Benjamin reference relates to a so-called “slip-forming” process for fabricating molded hollow articles. Specifically, at page 3, lines 47-52, Benjamin describe such a slip-forming process in relation to

molding of a polypropylene blank that is heated to within a few degrees of the crystalline melting point:

“4. As the sheet moves down contact with the domed male mould results and the sheet tightens as the dome shape is imparted. When the blank between the clamping rings is level with the mould edge, slipping of the sheet out of the clamping rings results.”

Benjamin continues to explain at page 3, lines 61-63 that:

“6. The downward movement and forming continues until all the sheet has slipped out of the clamping rings.”

It is thus self-evident that the fibers subjected to the Benjamin process would not be capable of being drawn so as to reduce the fiber diameter and achieve a difference between greatest and smallest mean values of the different mean fibre diameters of at least 7% as is defined by the presenting pending claims. That is, since the sheet of material physically slips out of the clamps there would be no draw-down of the fiber diameter so that the fiber diameter in the Benjamin process would be the same throughout the fibre’s length. As such, the process of Benjamin would not result in any fiber diameter difference – certainly not a difference between greatest and smallest mean values of the different mean fibre diameters of at least 7%.

As was demonstrated at the interview of February 9th, curved objects using the Benjamin slip-forming process had substantial wrinkling through the thickness of the curved ply in several regions. In stark contrast, however, curved objects in accordance with the presently claimed invention were wrinkle-free.

Wrinkles that are present in a curved object that is employed as ballistic armor result in regions of ballistic weakness – a clearly disadvantageous property. However, since the objects of the presently claimed invention are wrinkle free, they do not suffer

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from such a disadvantage. As such, the wrinkle-free curved objects of the presently claimed invention can offer much greater reliability in terms of ballistic protection as compared to curved objects produced, e.g., with the slip-forming technique of Benjamin.

The applied Bhatnagar reference discloses at col. 6, ln. 1-5, various ranges for the denier of the yarns suitable for use in the objects thereof and at col. 6, ln. 47-50 that yarns with different fibers may be used in warp and weft directions. However, these disclosures do not explicitly or implicitly teach that the mean fiber diameter varies from one location to another in the object of Bhatnagar.

Therefore, even if an ordinarily skilled person might combine the teachings of Bhatnagar with Benjamin, the presently claimed invention would not be the result.

Withdrawal of the rejection advanced under 35 USC §103(a) is therefore in order.

5. Fee Authorization

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

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